



OWNER'S MANUAL

100

BWS

YW100E

4VP-F8199-E1

Welcome to the Yamaha world of motorcycling!

As the owner of a BW'S100, you are benefiting from Yamaha's vast experience in and newest technology for the design and the manufacture of high-quality products, which have earned Yamaha a reputation for dependability.

Please take the time to read this manual thoroughly, so as to enjoy all your BW'S100's advantages. The owner's manual does not only instruct you in how to operate, inspect and maintain your scooter, but also in how to safeguard yourself and others from trouble and injury.

In addition, the many tips given in this manual will help to keep your scooter in the best possible condition. If you have any further questions, do not hesitate to contact your Yamaha dealer.

The Yamaha team wishes you many safe and pleasant rides. So, remember to put safety first!

IMPORTANT MANUAL INFORMATION

EAU00005

Particularly important information is distinguished in this manual by the following notations:



The Safety Alert Symbol means ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!



Failure to follow WARNING instructions could result in severe injury or death to the scooter operator, a bystander or a person inspecting or repairing the scooter.

CAUTION:

A CAUTION indicates special precautions that must be taken to avoid damage to the scooter.

NOTE:

A NOTE provides key information to make procedures easier or clearer.

NOTE: _____

- This manual should be considered a permanent part of this scooter and should remain with it even if the scooter is subsequently sold.
 - Yamaha continually seeks advancements in product design and quality. Therefore, while this manual contains the most current product information available at the time of printing, there may be minor discrepancies between your scooter and this manual. If there is any question concerning this manual, please consult your Yamaha dealer.
-

IMPORTANT MANUAL INFORMATION

EW000002

WARNING

PLEASE READ THIS MANUAL CAREFULLY AND COMPLETELY BEFORE OPERATING THIS SCOOTER.

EAU00008

YW100E

OWNER'S MANUAL

© 1999 by Yamaha Motor Taiwan Co., Ltd.

1st Edition, March 1999

**All rights reserved. Any reprinting or
unauthorized use without the written
permission of Yamaha Motor Taiwan Co., Ltd.
is expressly prohibited.**

Printed in Taiwan

TABLE OF CONTENTS

1	GIVE SAFETY THE RIGHT OF WAY	1-1	Front trunk	3-8
	FURTHER SAFE RIDING POINTS FOR THIS MODEL	1-2	Luggage hook	3-8
2	DESCRIPTION	2-1	Sidestand	3-8
	Left view	2-1	Sidestand switch operation check	3-9
	Right view	2-2		
	Controls / Instruments	2-3	4	PRE-OPERATION CHECKS
3	INSTRUMENT AND CONTROL FUNCTIONS	3-1		Pre-operation check list
	Main switch / Steering lock	3-1	5	OPERATION AND IMPORTANT RIDING POINTS
	Indicator lights	3-2		Starting up a cold engine
	Speedometer	3-2		Starting off
	Fuel gauge	3-2		Acceleration
	Handlebar switches	3-3		Braking
	Front brake lever	3-4		Engine break-in
	Rear brake lever	3-4		Parking
	Fuel and oil tanks	3-4	6	PERIODIC MAINTENANCE AND MINOR REPAIR
	Fuel	3-5		Took kit
	Fuel tank breather hose	3-5		Periodic maintenance and lubrication
	Two-stroke engine oil	3-6		Cowling and panel removal and installation
	Kick starter	3-6		Cowling A
	Seat	3-6		Panel B
	Helmet holder	3-7		Spark plug
	Trunk	3-7		
	Rear carrier	3-8		

TABLE OF CONTENTS

Final gear oil replacement	6-9
Air filter cleaning	6-9
Carburetor adjustment	6-11
Throttle cable free play adjustment	6-11
Tires	6-12
Wheels	6-14
Front brake adjustment	6-14
Rear brake adjustment	6-14
Checking the front brake pads and brake shoes	6-15
Inspecting the brake fluid level	6-16
Brake fluid replacement	6-16
Cable inspection and lubrication	6-16
Throttle cable and grip lubrication	6-17
Autolube pump adjustment	6-17
Brake lever lubrication	6-17
Center and sidestand lubrication	6-17
Front fork inspection	6-18
Wheel bearings	6-18
Steering inspection	6-19
Battery	6-19
Fuse replacement	6-20
Headlight bulb replacement	6-21
Turn signal and taillight bulb replacement	6-21
License light bulb replacement	6-22

7

Troubleshooting	6-23
Troubleshooting chart	6-24

8

SCOOTER CARE AND STORAGE	7-1
Care	7-1
Storage	7-4

9

SPECIFICATIONS	8-1
CONSUMER INFORMATION	9-1
Identification numbers records	9-1
Key identification number	9-1
Vehicle identification number	9-1
Engine serial number	9-2

TABLE OF CONTENTS



GIVE SAFETY THE RIGHT OF WAY

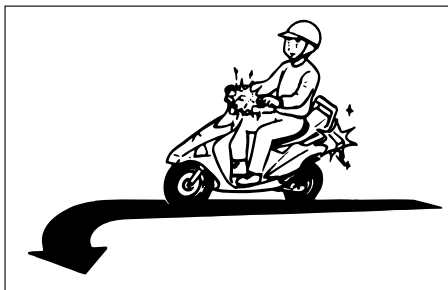
Scooters are fascinating vehicles, which can give you an unsurpassed feeling of power and freedom. However, they also impose certain limits, which you must accept; even the best scooter does not ignore the laws of physics.

Regular care and maintenance are essential for preserving your scooter's value and operating condition. Moreover, what is true for the scooter is also true for the rider: good performance depends on being in good shape. Riding under the influence of medication, drugs and alcohol is, of course, out of the question. Scooter riders - more than car drivers - must always be at their mental and physical best. Under the influence of even small amounts of alcohol, there is a tendency to take dangerous risks.

Protective clothing is as essential for the scooter rider as seat belts are for car drivers and passengers. Always wear a complete motorcycle suit (whether made of leather or tear-resistant synthetic materials with protectors), sturdy boots, motorcycle gloves and a properly fitting helmet. Optimum protective wear, however, should not encourage carelessness. Though full-coverage helmets and suits, in particular, create an illusion of total safety and protection, motorcyclists will always be vulnerable. Riders who lack critical self-control run the risk of going too fast and are apt to take chances. This is even more dangerous in wet weather. The good motorcyclist rides safely, predictably and defensively - avoiding all dangers, including those caused by others.

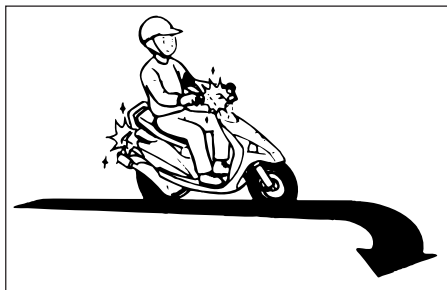
Enjoy your ride!

FURTHER SAFE RIDING POINTS FOR THIS MODEL



1. Left turn

- Be sure to signal clearly when making turns.
- Braking can be extremely difficult on a wet road. Avoid hard braking, because the scooter could slide. Apply the brakes slowly when stopping on a wet surface.
- Slow down as you approach a corner or turn. Once you have completed a turn, accelerate slowly.
- Be careful when passing parked cars. A driver might not see you and open a door in your path.



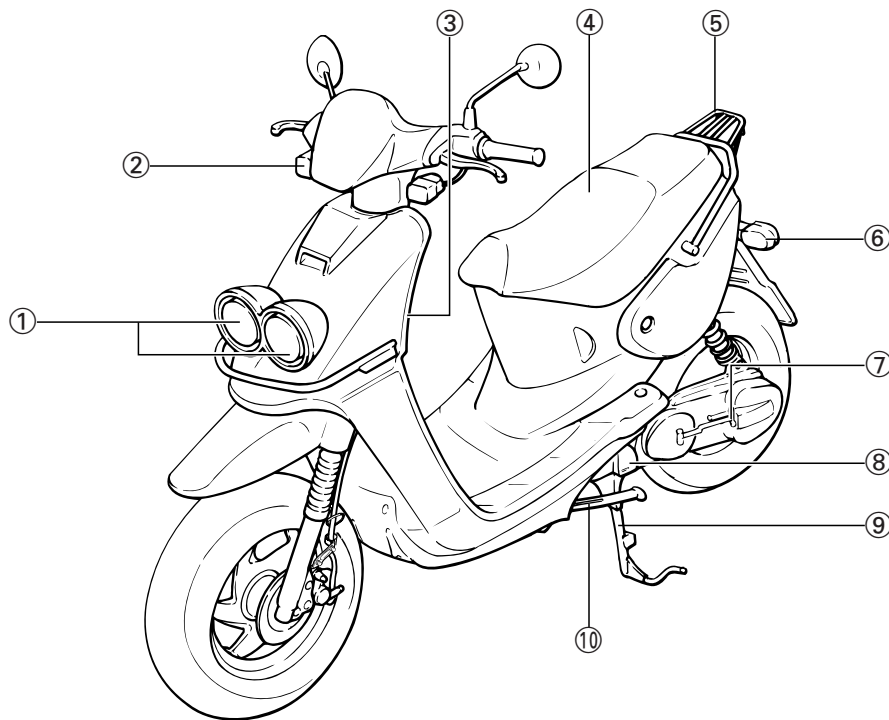
1. Right turn

- Street car rails, iron plates on road construction sites, and man-hole covers become extremely slippery when wet. Slow down and cross them with caution. Keep the scooter upright. It could slide out from under you.
- The brake lining could get wet when you wash the scooter. After washing the scooter, check the brakes before riding.
- Always wear a helmet, gloves, trousers (tapered around the cuff and ankle so they do not flap), and a bright colored jacket.

- Do not carry too much luggage on the scooter. An overloaded scooter is unstable. Use a strong cord to secure any luggage to the luggage rack. A loose load will affect the stability of the scooter and could divert your attention from the road.

DESCRIPTION

Left view



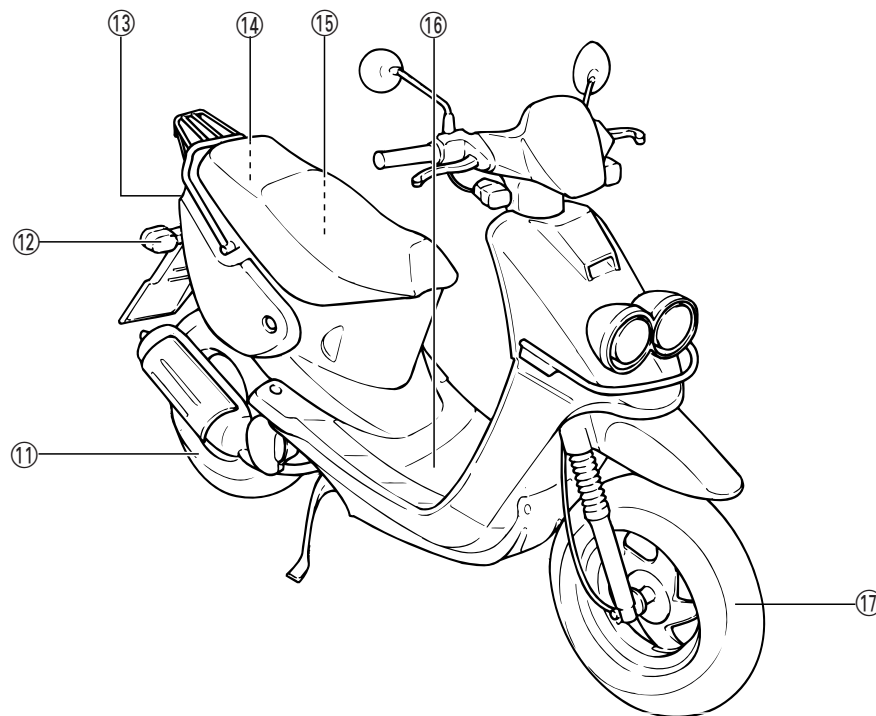
- 1. Headlights
- 2. Front turn signal
- 3. Luggage hook
- 4. Seat
- 5. Rear carrier

(page 6-20)
(page 6-21)
(page 3-8)
(page 3-6)
(page 3-8)

- 6. Rear turn signal
- 7. Kick starter
- 8. Air filter
- 9. Centerstand
- 10. Sidestand

(page 6-21)
(page 3-6)
(page 6-9)
(page 6-17)
(page 3-8)

Right view



- 11. Rear wheel
- 12. Rear turn signal
- 13. Taillight
- 14. Fuel tank
- 15. Trunk

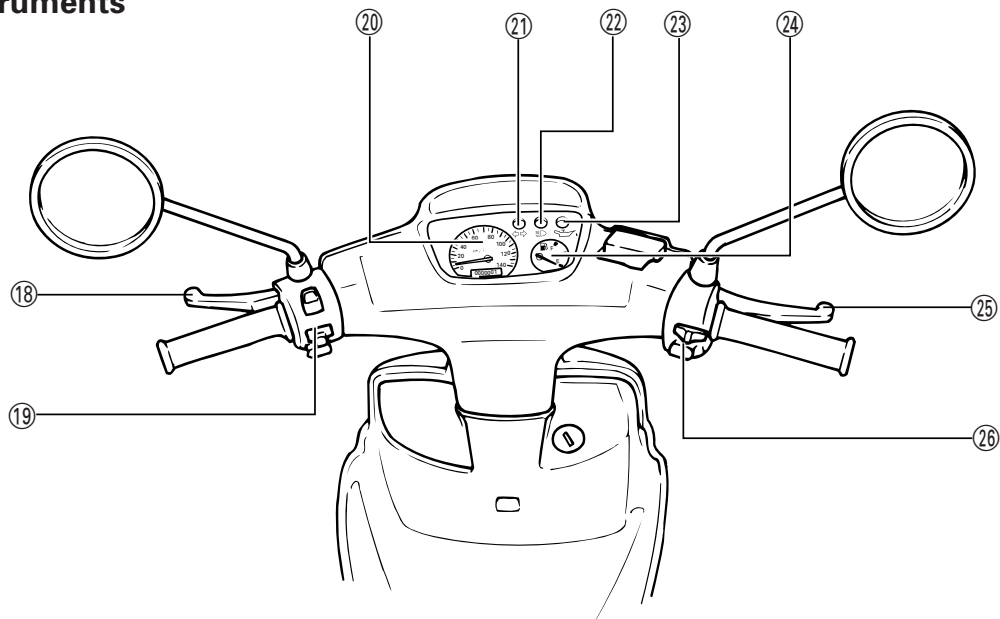
(page 6-14)
(page 6-21)
(page 6-21)
(page 3-5)
(page 3-7)

- 16. Battery
- 17. Front wheel

(page 6-19)
(page 6-14)

DESCRIPTION

Controls/Instruments

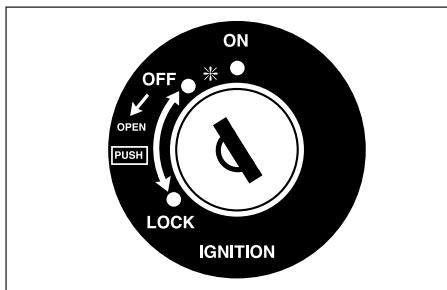


18. Rear brake lever
19. Left handlebar switches
20. Speedometer
21. Turn indicator
22. High beam indicator

(page 3-4)
(page 3-3)
(page 3-2)
(page 3-2)
(page 3-2)

23. Oil level indicator light
24. Fuel gauge
25. Front brake lever
26. Right handlebar switches

(page 3-2)
(page 3-2)
(page 3-4)
(page 3-3)



Main switch/Steering lock

The main switch controls the ignition and lighting systems. Its operation is described below.

ON

Electrical circuits are switched on. The engine can be started. The key cannot be removed in this position.

OFF

All electrical circuits are switched off. The key can be removed in this position.

*

The oil level indicator light should come on. For details about the oil level indicator light, refer to "Oil level indicator light" on page 3-2.

LOCK

The steering is locked in this position and all electrical circuits are switched off.

The key can be removed in this position.

To lock the steering, turn the handlebars all the way to the left. With the key at "OFF", push it into the main switch and release it, turn it counterclockwise to "LOCK" and remove it. To unlock the steering, push the key into the main switch and turn it to "OFF".

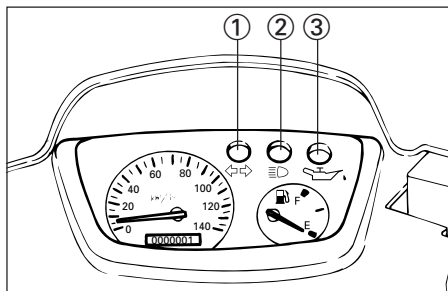
EAU02954

EW000016

⚠ WARNING

Never turn the key to "OFF" or "LOCK" when the scooter is moving. The electrical circuits will be switched off which may result in loss of control or an accident. Be sure the motorcycle is stopped before turning the key to "OFF" or "LOCK".

INSTRUMENT AND CONTROL FUNCTIONS



1. Turn indicator light "↔"
2. High beam indicator light "≡D"
3. Oil level indicator light "🛢️"

EAU00056

Indicator lights

EAU00057

Turn indicator light "↔"

This indicator flashes when the turn switch is moved to the left or right.

EAU00063

High beam indicator light "≡D"

This indicator comes on when the headlight high beam is used.

EAU02958

Oil level indicator light "🛢️"

The light comes on when the key is in the "⌘" position or when there is little oil in the oil tank during operation. If the oil indicator light comes on during operation, refill the tank

immediately with Yamalube 2 or 2-stroke engine oil (JASO FC grade or ISO EG-C, EG-D grade). When the tank is refilled, the indicator light should go off.

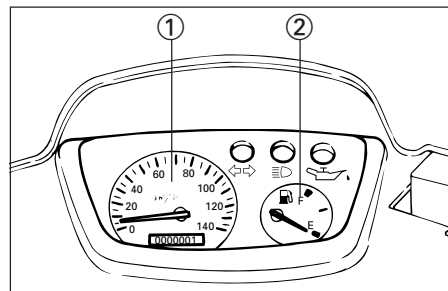
NOTE:

If the oil indicator light does not come on while the key is in the "⌘" position or does not go off when the oil level is sufficient, have a Yamaha dealer inspect the oil indicator light electrical circuit.

EC000000

CAUTION:

Do not run the scooter until you know it has sufficient engine oil.



1. Speedometer
2. Fuel gauge

EAU00098

Speedometer

The speedometer shows riding speed.

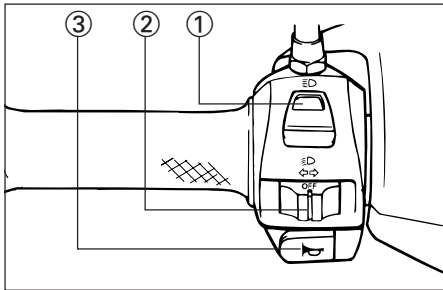
This speedometer is equipped with an odometer.

EAU02950

Fuel gauge

The fuel gauge indicates the quantity of the remaining gasoline in the tank. The gauge needle moves from "F" (Full) to "E" (Empty) as the fuel level decreases. When the needle reaches the red line, refill the tank at the earliest opportunity.

INSTRUMENT AND CONTROL FUNCTIONS



1. Dimmer switch
2. Turn signal switch
3. Horn switch "🔊"

EAU00118

Handlebar switches

EAU00121

Dimmer switch

Turn the switch to "☰" for the high beam and to "☷" for the low beam.

EAU00127

Turn signal switch

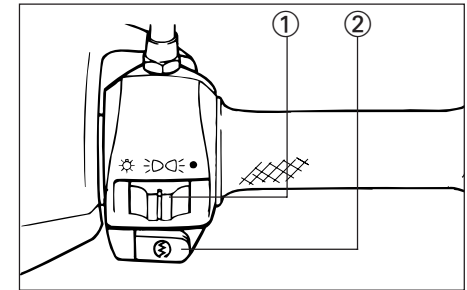
To signal a right-hand turn, push the switch to "☞". To signal a left-hand turn, push the switch to "☛". Once the switch is released it will return to the center position.

To cancel the signal, push the switch in after it has returned to the center position.

Horn switch "🔊"

Press the switch to sound the horn.

EAU00129



1. Light switch
2. Start switch "🌀"

EAU00134

Lights switch

Turning the light switch to "☞☛", turns on the auxiliary light, meter lights and taillight. Turning the light switch to "☀", turns the headlight on also.

EAU00143

Start switch "🌀"

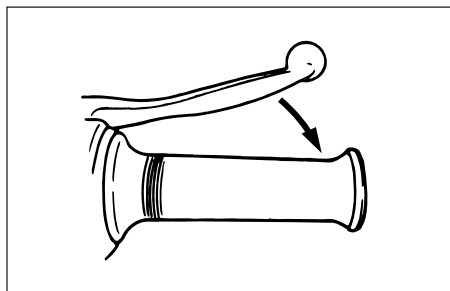
The starter motor cranks the engine when pushing the start switch.

EC000005

CAUTION:

See starting instructions prior to starting the engine.

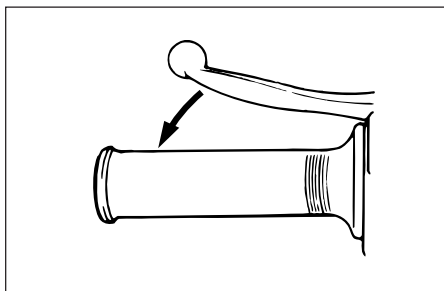
INSTRUMENT AND CONTROL FUNCTIONS



Front brake lever

EAU00158

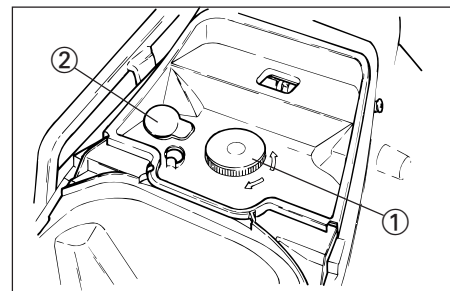
The front brake lever is located on the right handlebar. Pull it toward the handlebar to apply the front brake.



Rear brake lever

EAU00163

The rear brake lever is located on the left handlebar. Pull it toward the handlebar to apply the rear brake.



1. Fuel tank cap

2. Oil tank cap

EAU02966

Fuel and oil tanks

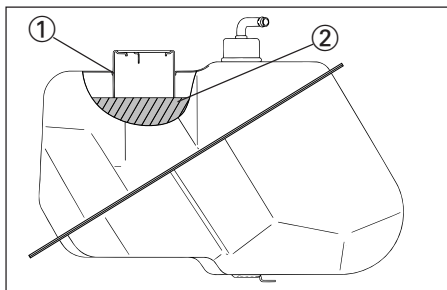
The fuel tank and oil tank are located under the seat.

EW000025

⚠ WARNING

Be sure the caps are properly installed before riding the scooter.

INSTRUMENT AND CONTROL FUNCTIONS



1. Filler tube

2. Fuel level

EAU01183

Fuel

Make sure there is sufficient fuel in the tank. Fill the fuel tank to the bottom of the filler tube as shown in the illustration.

EW000130

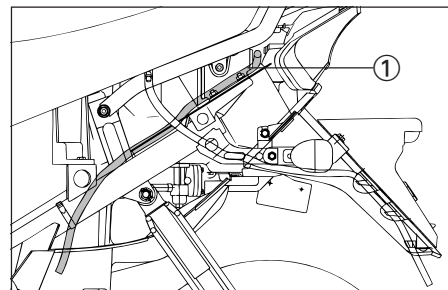
⚠ WARNING

Do not overfill the fuel tank. Avoid spilling fuel on the hot engine. Do not fill the fuel tank above the bottom of the filler tube or it may overflow when the fuel heats up later and expands.

CAUTION:

Always wipe off spilled fuel immediately with a dry and clean soft cloth. Fuel may deteriorate painted surfaces or plastic parts.

EAU00185



1. Breather hose

EAU02955

Fuel tank breather hose

This model is equipped with a fuel tank breather hose.

Before using this motorcycle:

- Check the fuel tank breather hose connection.
- Check the fuel tank breather hose for cracks or damage and replace it if damaged.
- Make sure the end of the fuel tank breather hose is not blocked and clean it if necessary.

Recommended fuel:

Regular unleaded gasoline with a research octane number of 91 or higher.

Fuel tank capacity:

Total:
5.7 L

EAU00191

NOTE:

If knocking or pinging occurs, use a different brand of gasoline or higher octane grade.

INSTRUMENT AND CONTROL FUNCTIONS

Two-stroke engine oil

Make sure there is sufficient two-stroke engine oil in the oil tank. Add the recommended oil as necessary.

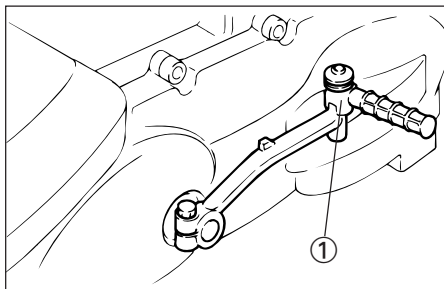
Recommended oil:

Yamalube 2 or 2-stroke engine oil (JASO FC grade or ISO EG-C, EG-D grade)

Oil tank capacity:

1.4 L

EAU02956

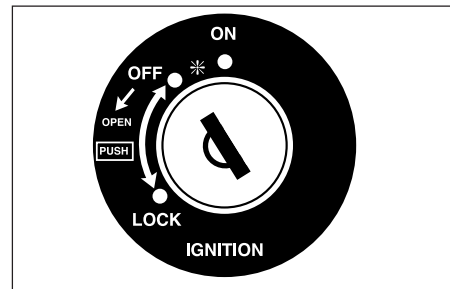


1. Kick starter

EAU00214

Kick starter

Rotate the kick starter away from the engine. Push the starter down lightly with your foot until the gears engage, then kick smoothly and forcefully to start the engine.



EAU02959

Seat

To open

Insert the key into the main switch and turn it counterclockwise. Do not push inward when turning the key.

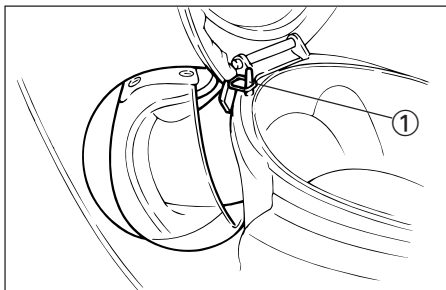
To close

Push the seat downward to the original position and remove the key from the main switch.

NOTE:

- Place the scooter on the centerstand before opening the seat.
- Make sure the seat is securely closed before riding the scooter.

INSTRUMENT AND CONTROL FUNCTIONS



1. Helmet holder

EAU00262

Helmet holder

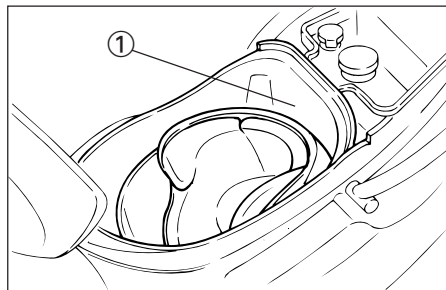
The helmet holder is located under the seat.

Open the seat and hook the helmet on the helmet holder. Then lock the seat.

EW00030

⚠ WARNING

Never ride with a helmet in the helmet holder. The helmet may hit objects, causing loss of control and possibly an accident.



1. Trunk

EAU00268

Trunk

The trunk is under the seat.

EW000032

⚠ WARNING

Do not exceed the load limit of 5 kg .

CAUTION:

Keep the following in mind when using the trunk.

- The trunk gets hot inside when exposed to the sun. Do not put anything in the trunk susceptible to heat.

- Put wet articles in a vinyl bag when storing them in the trunk.
- The trunk may get wet while the scooter is being washed. Put articles in a vinyl bag before storing them in the trunk.
- Do not put anything in the trunk that is valuable or easy to break.

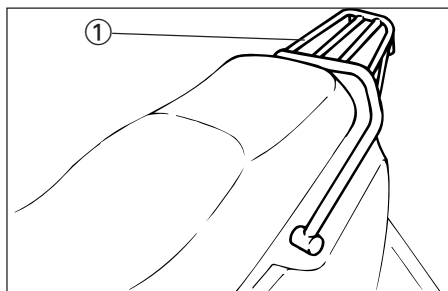
When storing a helmet in the trunk, place it upside-down with the front facing forward.

NOTE:

Some helmets cannot be stored in the trunk because of their size or shape.

Do not leave your scooter with the seat open.

INSTRUMENT AND CONTROL FUNCTIONS



1. Rear carrier

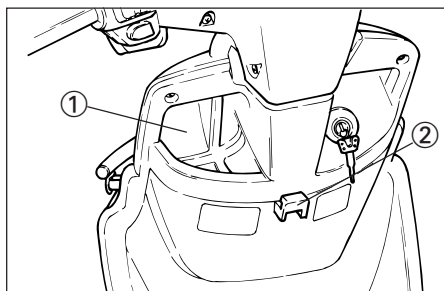
EAU00320

Rear carrier

EW000032

⚠ WARNING

Do not exceed the load limit of 5 kg .



1. Front trunk

2. Luggage hook

Front trunk

EAUT0000

⚠ WARNING

Do not exceed the load limit of 1.5 kg.

Luggage hook

EW000032

⚠ WARNING

Do not exceed the load limit of 3 kg .

EAU00330

Sidestand

This model is equipped with an ignition circuit cut-off system. The scooter must not be ridden when the sidestand is down. The sidestand is located on the left side of the frame. (Refer to page 3-9 for an explanation of this system.)

EW000044

⚠ WARNING

This scooter must not be operated with the sidestand in the down position. If the stand is not properly retracted, it could contact the ground and distract the operator, resulting in a possible loss of control. Yamaha has designed into this scooter a lockout system to assist the operator in fulfilling the responsibility of retracting the sidestand. Please check carefully the operating instructions listed below and if there is any indication of a malfunction, return the scooter to a Yamaha dealer immediately for repair.

EAUT0337

Sidestand switch operation check

Check the operation of the sidestand switch against the information below.

EW000046

⚠ WARNING

Be sure to use the centerstand during this inspection.

Turn the main switch to "ON" .



Put the sidestand up.



Push the start switch while applying either of the brake levers. The engine will start.



Put the sidestand down.



If the engine stalls:



The sidestand switch is OK.

EW000045

⚠ WARNING

If improper operation is noted, consult a Yamaha dealer immediately.

PRE-OPERATION CHECKS

Owners are personally responsible for their vehicle's condition. Your scooter's vital functions can start to deteriorate quickly and unexpectedly, even if it remains unused (for instance, if it is exposed to the elements). Any damage, fluid leak or loss of tire pressure could have serious consequences. Therefore, it is very important that, in addition to a thorough visual inspection, you check the following points before each ride.

EAU00340

PRE-OPERATION CHECK LIST

ITEM	CHECKS	PAGE
Front brake	<ul style="list-style-type: none"> • Check operation, free play, fluid level and vehicle for fluid leakage. • Fill with DOT 4 (or DOT 3) brake fluid if necessary. 	3-4,6-14~6-16
Rear brake	<ul style="list-style-type: none"> • Check operation, free play. 	3-4,6-14~6-15
Throttle grip and housing	<ul style="list-style-type: none"> • Check for smooth operation. • Lubricate. • Adjust throttle cable free play if necessary. 	6-11,6-17
Engine oil	<ul style="list-style-type: none"> • Check oil level. • Fill with oil if necessary. 	3-6
Final gear oil	<ul style="list-style-type: none"> • Check vehicle for leakage. 	6-9
Wheels and tires	<ul style="list-style-type: none"> • Check tire pressure, wear, damage. 	6-12~6-14
Brake levers pivots	<ul style="list-style-type: none"> • Check for smooth operation. • Lubricate if necessary. 	6-17
Chassis fasteners	<ul style="list-style-type: none"> • Make sure that all nuts, bolts, and screws are properly tightened. • Tighten if necessary. 	—
Fuel tank	<ul style="list-style-type: none"> • Check fuel level. • Fill with fuel if necessary. 	3-4~3-5
Lights, signals and switches	<ul style="list-style-type: none"> • Check for proper operation. 	3-3

PRE-OPERATION CHECKS

NOTE:

Pre-operation checks should be made each time the scooter is used. Such an inspection can be accomplished in a very short time, and the added safety it assures is more than worth the time involved.

⚠ WARNING

If any item in the Pre-operation Check is not working properly, have it inspected and repaired before operating the scooter.

OPERATION AND IMPORTANT RIDING POINTS

EAU01118
EW000129

⚠ WARNING

- Before riding this scooter, become thoroughly familiar with all operating controls and their functions. Consult a Yamaha dealer regarding any control or function that you do not thoroughly understand.
- Never start your engine or let it run for any length of time in a closed area. The exhaust fumes are poisonous and can cause loss of consciousness and death within a short time. Always operate your scooter in an area with adequate ventilation.
- For safety, be sure to start the engine with the centerstand down.

EAU02960

Starting up a cold engine

1. Turn the main switch to “*”. If the oil level indicator light comes on, turn the main switch to “ON”.

EC000045

CAUTION:

If the oil level indicator light does not come on, ask a Yamaha dealer to inspect it.

2. Completely close the throttle grip.
3. Start the engine by pushing the start switch while applying the front or rear brake or by kicking the kick starter.

NOTE:

If the engine fails to start when using the electric starter, release the start switch, wait a few seconds, then try again. Each attempt should be as short as possible to preserve the battery. Do not crank the engine more than 5 seconds on any one at-

tempt. If the engine does not start with the starter motor, kick the kick starter to start the engine.

NOTE:

For maximum engine life, always warm up the engine about 1 ~ 3 minutes before riding your scooter. Never accelerate hard with a cold engine.

EC000046

CAUTION:

See the “Engine break-in” section prior to operating the motorcycle for the first time.

Starting off

EAU00433

After warming up the engine:

1. Apply the rear brake lever with your left hand and hold the grab bar with your right hand. Then push the scooter off the centerstand.
2. Sit astride the seat and adjust the rear view mirrors.
3. Check the oncoming traffic and use a turn signal.
4. Turn the throttle grip on the right handlebar slowly and you will start off. Remember to turn off the turn signal.

Acceleration

EAU00434

The speed can be adjusted by opening and closing the throttle grip. Turning it toward you increases the speed, and turning it in the opposite direction decreases the speed.

Braking

EAU00435

1. Close the throttle grip.
2. Apply both front and rear brakes simultaneously with light pressure and increase the pressure slowly.

EW000057

WARNING

- **Avoid hard or sudden braking. It may cause the scooter to skid or overturn.**
- **Be sure to apply the brake carefully if leaning over to one side. Improper braking could lead to a skid.**
- **Street car rails, metal plates on road construction sites, and man-hole covers become particularly slippery when they get wet. Cross them slowly and cautiously.**
- **Braking on a wet road is very difficult.**
- **Braking on a hill can be difficult. Proceed slowly when riding downhill.**

Engine break-in

EAU00436

There is never a more important period in the life of your scooter than the period between zero and 1,000 km (600 mi). For this reason we ask that you carefully read the following material. Because the engine is brand new, you must not put an excessive load on it for the first 1,000 km (600 mi). The various parts in the engine wear and polish themselves to the correct operating clearances. During this period, prolonged full throttle operation, or any condition which might result in excessive heating of the engine, must be avoided.

OPERATION AND IMPORTANT RIDING POINTS

EAUT0003

0 ~ 150 km (0 ~ 100 mi)

Avoid operation above 1/3 throttle. Stop the engine and let it cool for 5 to 10 minutes after every hour of operation. Vary the speed of the scooter from time to time. Do not operate it at one set throttle position.

150 ~ 500 km (100 ~ 300 mi)

Avoid prolonged operation above 1/2 throttle.

500 ~ 1,000 km (300 ~ 600 mi)

Avoid cruising speeds in excess of 3/4 throttle.

ECT00060

CAUTION:

After 1,000 km of operation, be sure to replace the final gear oil.

1,000 km (600 mi) and beyond

Avoid prolonged full throttle operation. Vary speeds occasionally.

EC000049

CAUTION:

If any engine trouble should occur during the break-in period, consult a Yamaha dealer immediately.

EAU00460

Parking

When parking the scooter, stop the engine and remove the ignition key.

EW000058

⚠ WARNING

The exhaust system is hot. Park the scooter in a place where pedestrians or children are not likely to touch the scooter.

Do not park the scooter on a slope or soft ground the scooter may overturn.

PERIODIC MAINTENANCE AND MINOR REPAIR

EAU00464

Periodic inspection, adjustment and lubrication will keep your scooter in the safest and most efficient condition possible. Safety is an obligation of the scooter owner. The maintenance and lubrication schedule chart should be considered strictly as a guide to general maintenance and lubrication intervals. **YOU MUST TAKE INTO CONSIDERATION THAT WEATHER, TERRAIN, GEOGRAPHICAL LOCATIONS, AND A VARIETY OF INDIVIDUAL USES ALL TEND TO DEMAND THAT EACH OWNER ALTER THIS TIME SCHEDULE TO SHORTER INTERVALS TO MATCH THE ENVIRONMENT.** The most important points of scooter inspection, adjustment, and lubrication are explained in the following pages.

EW000060

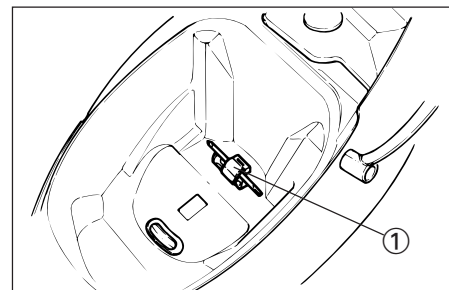
⚠ WARNING

If you are not familiar with scooter service, this work should be done by a Yamaha dealer.

EAU00466

CAUTION:

This scooter is designed for use on paved road surface only. If this scooter is operated in abnormally dusty, muddy or wet conditions, the air filter should be cleaned or replaced more frequently. Otherwise, rapid engine wear may result. Consult a Yamaha dealer for proper maintenance intervals.



1. Tool kit

EAU00469

Tool kit

The service information included in this manual is intended to provide you, the owner, with the necessary information for completing some of your own preventive maintenance and minor repairs.

The tools provided in the owner's tool kit are to assist you in the performance of periodic maintenance. However, some other tools such as a torque wrench are also necessary to perform the maintenance correctly.

PERIODIC MAINTENANCE AND MINOR REPAIR

NOTE: _____

If you do not have necessary tools required during a service operation, take your scooter to a Yamaha dealer for service.

EW000063

⚠ WARNING _____

Modifications to this scooter not approved by Yamaha may cause loss of performance, and render it unsafe for use. Consult a Yamaha dealer before attempting any changes.

PERIODIC MAINTENANCE AND MINOR REPAIR

EAU00473

Periodic maintenance and lubrication chart

No.	ITEM	CHECKS OR MAINTENANCE JOB	ODOMETER READING(km)					ANNUAL
			1,000	6,000	12,000	18,000	24,000	CHECK
1	* Fuel line	• Check fuel hoses and vacuum hose for cracks or damage.		√	√	√	√	√
2	Spark plug	• Replace.		√	√	√	√	√
3	Air filter element	• Clean.		√		√		
		• Replace.			√		√	
4	* Front brake	• Check operation, fluid level and vehicle for fluid leakage. (See NOTE on page 6-5.)	√	√	√	√	√	√
		• Replace brake pads.	Whenever worn to the limit					
5	* Rear brake	• Check operation and adjust brake lever free play.	√	√	√	√	√	√
		• Replace brake shoes.	Whenever worn to the limit					
6	* Brake hose	• Check for cracks or damage.		√	√	√	√	√
		• Replace. (See NOTE on page 6-5.)	Every 4 years					
7	* Wheels	• Check runout and for damage.		√	√	√	√	
8	* Tires	• Check tread depth and for damage. • Replace if necessary. • Check air pressure. • Correct if necessary.		√	√	√	√	
9	* Wheel bearings	• Check bearing for looseness or damage.		√	√	√	√	
10	* Steering bearings	• Check bearing play and steering for roughness.	√	√	√	√	√	
		• Lubricate with lithium-soap-based grease.	Every 24,000 km					
11	* Chassis fasteners	• Make sure that all nuts, bolts and screws are properly tightened.		√	√	√	√	√
12	Sidestand/ centerstand	• Check operation. • Lubricate.		√	√	√	√	√

PERIODIC MAINTENANCE AND MINOR REPAIR

No.	ITEM	CHECKS OR MAINTENANCE JOB	ODOMETER READING(km)					ANNUAL
			1,000	6,000	12,000	18,000	24,000	CHECK
13	* Sidestand switch	• Check operation.	√	√	√	√	√	√
14	* Front fork	• Check operation and for oil leakage.		√	√	√	√	
15	* Rear shock absorber assembly	• Check operation and shock absorber for oil leakage.		√	√	√	√	
16	* Carburetor	• Check starter (choke) operation. • Adjust engine idling speed.	√	√	√	√	√	√
17	* Autolube pump	• Check operation. • Bleed if necessary.	√		√		√	√
18	Final gear oil	• Check oil level and vehicle for oil leakage.	√	√		√		
		• Change.	√		√		√	
19	* V-belt	• Replace.	Every 10,000 km					
20	* Front and rear brake switches	• Check operation.	√	√	√	√	√	√
21	Moving parts and cables	• Lubricate.		√	√	√	√	√
22	* Lights, signals and switches	• Check operation. • Adjust headlight beam.	√	√	√	√	√	√

PERIODIC MAINTENANCE AND MINOR REPAIR

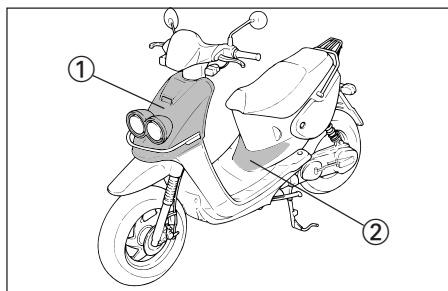
* Since these items require special tools, data and technical skills, they should be serviced by a Yamaha dealer.

EAU01450

NOTE:

- The air filter needs more frequent service if you are riding in unusually wet or dusty areas.
 - Hydraulic brake system
 - When disassembling the master cylinder or caliper cylinder, always replace the brake fluid. Check the brake fluid level regularly and fill as required.
 - Replace the oil seals on the inner parts of the master cylinder and caliper cylinder every two years.
 - Replace the brake hoses every four years or if cracked or damaged.
-

PERIODIC MAINTENANCE AND MINOR REPAIR



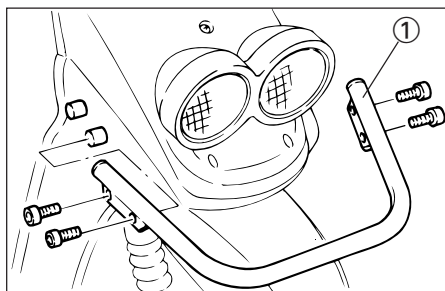
1. Cowling 2. Panel

EAU01139

Cowling and panel removal and installation

The cowlings and panels illustrated need to be removed to perform some of the maintenance described in this chapter.

Refer to this section each time a cowling or panel has to be removed or reinstalled.

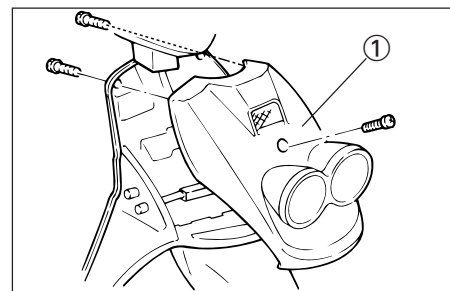


1. Protection bar

EAUT0483

Cowling A To remove

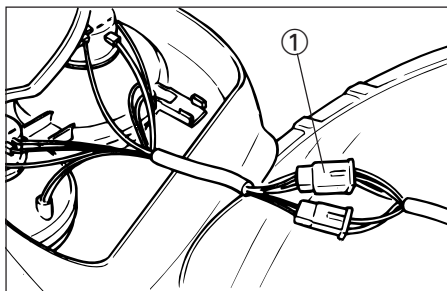
1. Remove the front protection bar by removing the bolts.



1. Cowling A

2. Remove the cowling screws, disconnect the headlight leads coupler and remove the cowling.

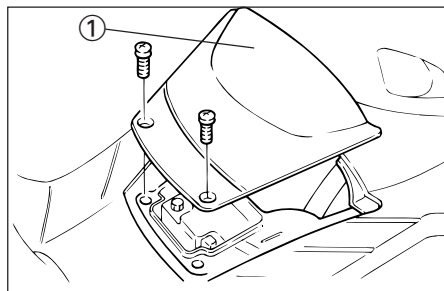
PERIODIC MAINTENANCE AND MINOR REPAIR



1. Headlight leads coupler

To install

1. Connect the headlight leads coupler.
2. Place the cowl in the original position and install the screws.
3. Place the front protection bar in the original position and install the bolts.



1. Panel B

Panel B

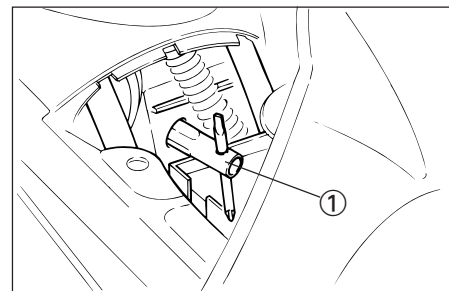
To remove

Remove the screws.

To install

Place the panel in the original position and install the screws.

EAU01315



1. Spark plug wrench

Spark plug

Removal

1. Remove panel B. (Refer to page 6-7 for removal and installation procedures.)
2. Remove the spark plug cap.
3. Use the spark plug wrench in the tool kit to remove the spark plug as shown.

EAUT1529

Inspection

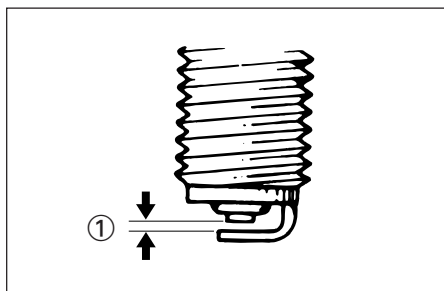
The spark plug is an important engine component and is easy to inspect. The condition of the spark plug can indicate the condition of the engine.

PERIODIC MAINTENANCE AND MINOR REPAIR

The ideal color on the white insulator around the center electrode is a medium-to-light tan color for a scooter that is being ridden normally.

Do not attempt to diagnose such problems yourself. Instead, take the scooter to a Yamaha dealer. You should periodically remove and inspect the spark plug because heat and deposits will cause any spark plug to slowly break down and erode. If electrode erosion becomes excessive, or if carbon and other deposits are excessive, you should replace the spark plug.

Specified spark plug:
BPR7HS (NGK)



1. Spark plug gap

Installation

1. Measure the electrode gap with a wire thickness gauge and, if necessary, adjust the gap to specification.

Spark plug gap:
0.9 ~ 1.0 mm

2. Clean the gasket surface. Wipe off any grime from the threads.
3. Install the spark plug and tighten it to the specified torque, then replace the spark plug cap.

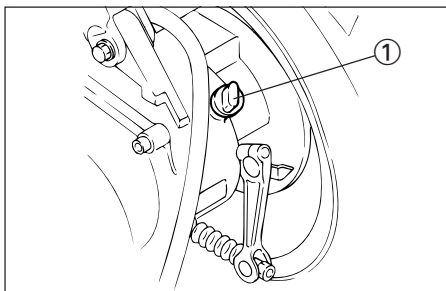
Tightening torque:
Spark plug:
20 Nm (2.0 mkg)

NOTE: _____

If a torque wrench is not available when you are installing a spark plug, a good estimate of the correct torque is 1/4 to 1/2 turn past finger tight. Have the spark plug tightened to the specified torque as soon as possible.

4. Install the panel.

PERIODIC MAINTENANCE AND MINOR REPAIR



1. Oil filler cap

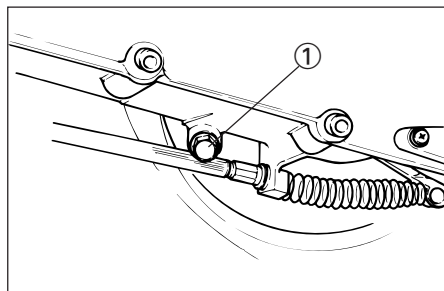
EAU02961

Final gear oil replacement

1. Put the scooter on the centerstand.
2. Place an oil pan under the final gear case.
3. Remove the oil filler cap and the drain bolt to drain the oil.
4. Install and tighten the drain bolt to the specified torque.

Tightening torque:
Drain bolt :
18 Nm (1.8 m.kg)

5. Fill the gear case with the recommended oil.



1. Drain bolt

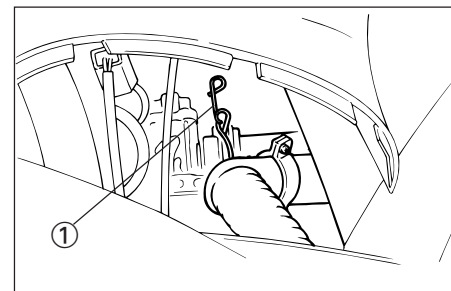
Recommended final gear oil:
SAE 85W140 type SE motor oil
Final gear oil quantity:
0.13 L

EW000066

⚠ WARNING

Do not let foreign material enter the final gear case. Be sure oil does not get on the tire or wheel.

6. Install the oil filler cap.
7. After replacing the final gear oil, be sure to check for oil leakage.



1. Carburetor joint clamp

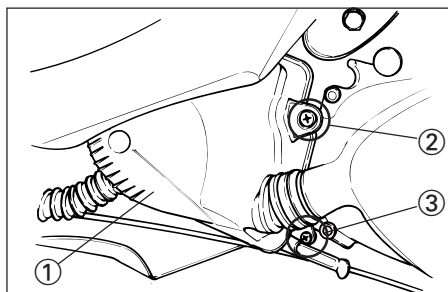
EAUT0624

Air filter cleaning

This air filter should be cleaned at the specified intervals. It should be cleaned more frequently if you are riding in unusually wet or dusty areas.

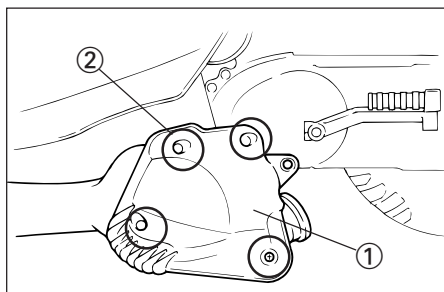
1. Remove panel B. (Refer to page 6-7 for removal and installation procedures.)
2. Remove the carburetor joint clamp.

PERIODIC MAINTENANCE AND MINOR REPAIR



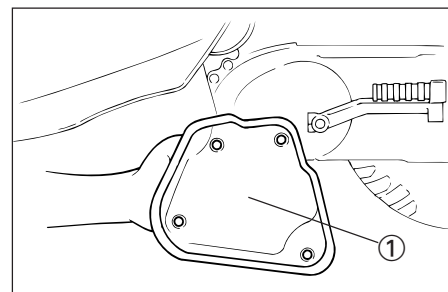
1. Air filter case 2. Bolt 3. Screw

3. Remove the air filter case bolt, loosen the air filter case joint screw, and then remove the air filter case.



1. Air filter cover 2. Screw (×4)

4. Remove the air filter case cover by removing the screws, and then remove the air filter element.

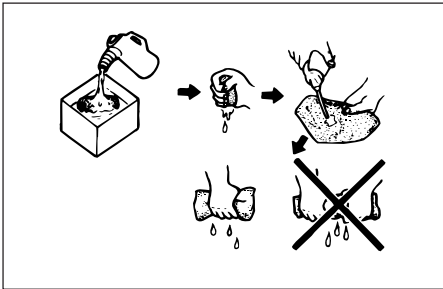


1. Air filter element

5. Wash the air filter element gently, but thoroughly in solvent.
6. Squeeze out the excess solvent and let the air filter element dry.

PERIODIC MAINTENANCE AND MINOR REPAIR

EAU00634



7. Apply oil to the entire surface of the air filter element and squeeze out the excess oil. It should be damp, but not dripping.

Recommended oil:
Engine oil

8. Coat the sealing edges of the air filter case and air filter case cover lightly with grease for an airtight seal.
9. Install the air filter element and the air filter case cover.

10. Install the air filter case and the carburetor joint clamp.
11. Tighten the air filter case bolt and the air filter case joint screw.
12. Install the panel.

EC000082

CAUTION:

Make sure the air filter is properly seated in the air filter case. The engine should never be run without the air filter installed. Excessive piston and/or cylinder wear may result.

EAU00627

Carburetor adjustment

The carburetor is a vital part of the engine and its emission control system. Adjusting should be left to a Yamaha dealer with the professional knowledge, specialized data and equipment to do so properly.

Throttle cable free play adjustment

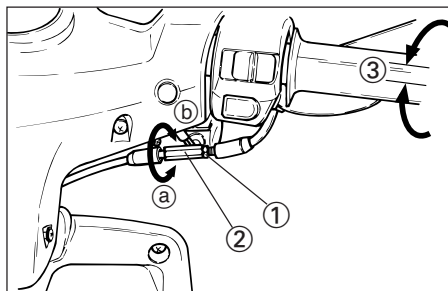
NOTE:

Before checking the throttle cable free play, the engine idling speed should be adjusted.

Adjust the throttle cable by turning the adjusting nut so that specified free play at the throttle grip is obtained.

Free play:
3 ~ 5 mm

PERIODIC MAINTENANCE AND MINOR REPAIR



1. Lock nut
2. Adjusting nut
3. Free play

1. Loosen the locknut.
2. Turn the adjusting nut in direction ① to increase free play and in direction ② to decrease free play.
3. Tighten the locknut.

EAU00661

EW000086

Tires

To ensure maximum performance, long service, and safe operation, note the following:

Tire air pressure

Always check and adjust the tire pressure before operating the scooter.

EW000076

⚠ WARNING

Tire inflation pressure should be checked and adjusted when the temperature of the tire equals the ambient air temperature. Tire inflation pressure must be adjusted according to total weight of cargo, rider, and accessories (fairing, saddlebags, etc. if approved for this model), and vehicle speed.

CE-02E

Maximum load*:	160 kg	
Cold tire pressure:	Front	Rear
Up to 90 kg	200 kpa (2.00 kgf/cm ² , 2.00 bar)	200 kpa (2.00 kgf/cm ² , 2.00 bar)
90 kg load ~ Maximum load*	200 kpa (2.00 kgf/cm ² , 2.00 bar)	200 kpa (2.00 kgf/cm ² , 2.00 bar)

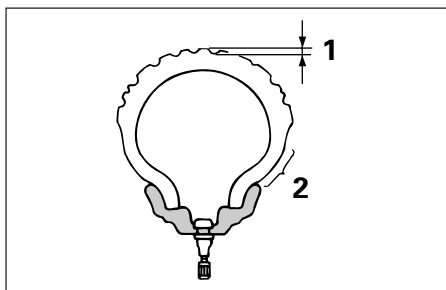
* Load is the total weight of cargo, rider and accessories.

⚠ WARNING

Proper loading of your scooter is important for several characteristics of your scooter such as handling, braking, performance and safety. Do not carry loosely packed items that can shift. Securely pack your heaviest items close to the center of the scooter, and distribute the weight evenly from side to side.

Check the condition and pressure of your tires. NEVER OVERLOAD YOUR SCOOTER. Make sure the total weight of the cargo, rider, and accessories (fairing, saddlebags, etc. if approved for this model) does not exceed the maximum load of the scooter. Operation of an overloaded scooter could cause tire damage, an accident, or even injury.

PERIODIC MAINTENANCE AND MINOR REPAIR



1. Tread depth

2. Side wall

Tire inspection

Always check the tires before operating the scooter. If center tread depth reaches the limit as shown, if the tire has a nail or glass fragments in it, or if the side wall is cracked, contact a Yamaha dealer immediately and have the tire replaced.

EW000084

⚠ WARNING

For safe operation, when tires are replaced, they must be replaced the recommended tire. Other rubber compounds, tread patterns, tube type tires or different ply rate tires may result in tire failure and/or

scooter instability.

CE-10E

FRONT

Manufacturer	Size	Type
CHENG-SHIN	120/90-10	56J

REAR

Manufacturer	Size	Type
CHENG-SHIN	130/90-10	59J

CE-11E

Minimum tire tread depth (front and rear)	1.6 mm
--	--------

NOTE:

These limits may be different by regulation from country to country. If so, conform to the limits specified by the regulations of your own country.

EAU00683

⚠ WARNING

Operating the scooter with excessively worn tires decrease riding stability and can lead to loss of control. Have excessively worn tires replaced by a Yamaha dealer immediately. Brakes, tires, and related wheel parts replacement should be left to a Yamaha Service Technician.

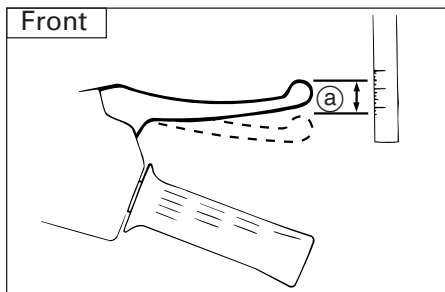
PERIODIC MAINTENANCE AND MINOR REPAIR

Wheels

To ensure maximum performance, long service, and safe operation, note the following:

- Always inspect the wheels before a ride. Check for cracks, bends, or warpage of the wheels. If any abnormal condition exists in a wheel, consult a Yamaha dealer.
- Do not attempt even small repairs to the wheel. If a wheel is deformed or cracked, it must be replaced.
- Tires and wheels should be balanced whenever either one is changed or replaced. Failure to have a wheel balanced can result in poor performance, adverse handling characteristics, and shortened tire life.
- Ride at moderate speeds after changing a tire since the tire surface must first be broken in for it to develop its optimal characteristics.

EAU00687



(a). Free play

EAU00697

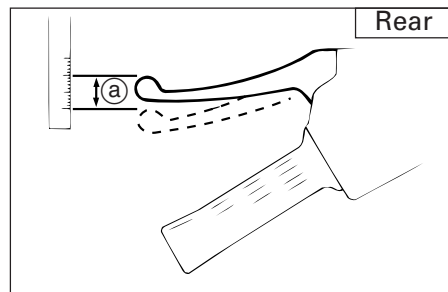
Front brake adjustment

The front brake lever should have a free play of 2 ~ 5 mm at the lever end. If not, ask a Yamaha dealer to adjust it.

EW000100

⚠ WARNING

An incorrect free play indicates a hazardous condition in the brake system. Do not operate the motorcycle until the failure in the brake system is corrected. Ask a Yamaha dealer for immediate repairs.



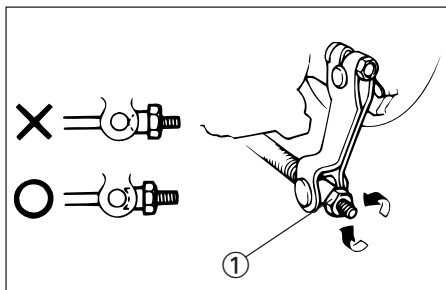
(a). Free play

EAU00704

Rear brake adjustment

The rear brake lever free play should be adjusted to 10 ~ 20 mm at the brake lever end. Adjustment is accomplished at the brake hub.

PERIODIC MAINTENANCE AND MINOR REPAIR



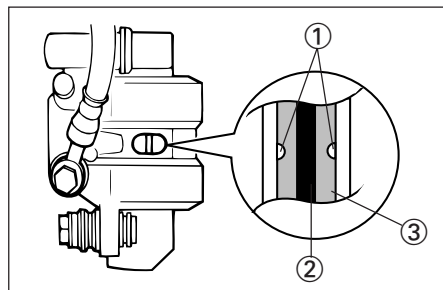
1. Adjusting nut

To adjust, turn the adjusting nut clockwise to reduce play or counter-clockwise to increase play.

EW000101

⚠ WARNING

When it is impossible to make the proper adjustment, ask a Yamaha dealer.



1. Wear indicator
2. Brake disk
3. Brake pads

Checking the front brake pads and rear brake shoes

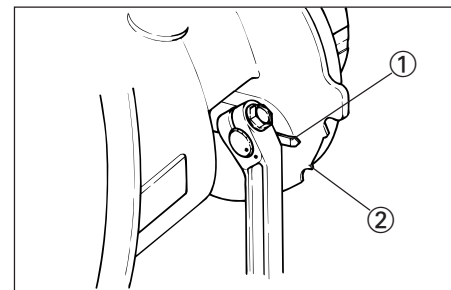
EAU00720

EAU00723

Front brake

Apply the brake and inspect the wear indicator.

If the wear indicator is **ALMOST** in contact with the disc plate, ask a Yamaha dealer to replace the pads.



1. Wear indicator
2. Wear limit line

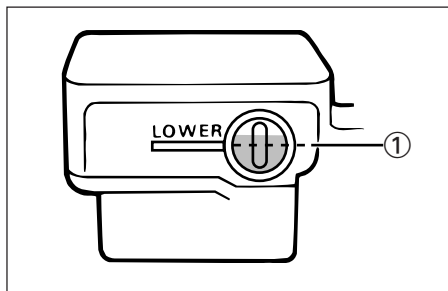
EAU00727

Rear brake

Apply the brake and inspect the wear indicator.

If the indicator reaches the wear limit line, ask a Yamaha dealer to replace the shoes.

PERIODIC MAINTENANCE AND MINOR REPAIR



1. Minimum level line

Inspecting the brake fluid level

EAU00732

Insufficient brake fluid may let air enter the brake system, possibly causing the brakes to become ineffective.

Before riding, check that the brake fluid is above the minimum level and fill when necessary.

Observe these precautions:

- When checking the fluid level, make sure the top of the master cylinder is level by turning the handlebars.
- Use only the designated quality brake fluid. Otherwise, the rubber seals may deteriorate, caus-

ing leakage and poor brake performance.

Recommended brake fluid:
DOT 4

NOTE:

If DOT 4 is not available, DOT 3 can be used.

- Refill with the same type of brake fluid. Mixing fluids may result in a harmful chemical reaction and lead to poor brake performance.
- Be careful that water does not enter the master cylinder when refilling. Water will significantly lower the boiling point of the fluid and may result in vapor lock.
- Brake fluid may deteriorate painted surfaces or plastic parts. Always clean up spilled fluid immediately.
- Have a Yamaha dealer check the cause if the brake fluid level goes down.

6-16

Brake fluid replacement

EAU00742

The brake fluid should be replaced only by trained Yamaha service personnel. Have the Yamaha dealer replace the following components during periodic maintenance or when they are damaged or leaking:

- oil seals (every two years)
- brake hoses (every four years)

Cable inspection and lubrication

EAU02962

EW000112

⚠ WARNING

Damage to the outer housing of cables may lead to internal rusting and interfere with the cable movement. Replace damaged cables as soon as possible to prevent unsafe conditions.

Lubricate the cables and cable ends. If a cable does not operate smoothly, ask a Yamaha dealer to replace it.

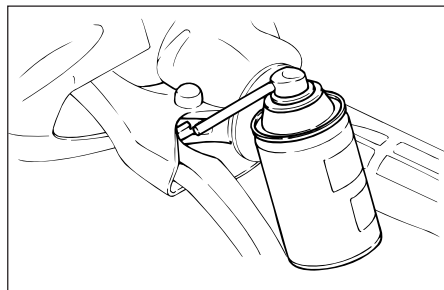
Recommended lubricant:
Engine oil

PERIODIC MAINTENANCE AND MINOR REPAIR

Throttle cable and grip lubrication

EAU00773

The throttle twist grip assembly should be greased at the time that the cable is lubricated, since the grip must be removed to get at the end of the throttle cable. After removing the screws, hold the end of the cable up in the air and put in several drops of lubricant. With the throttle grip disassembled, coat the metal surface of the grip assembly with a suitable all-purpose grease.



Autolube pump adjustment

EAU00774

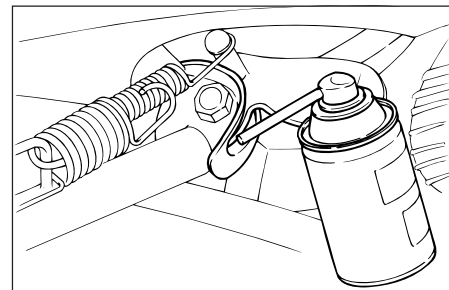
The autolube pump is a vital part of the engine and requires very sophisticated adjustment. Adjusting should be left to a Yamaha dealer who has the professional knowledge and experience to do so.

Brake lever lubrication

EAU00781

Lubricate the pivoting parts of both brake levers.

Recommended lubricant:
Engine oil



Center and sidestand lubrication

EAU02965

Lubricate the pivoting and mating joints.

Check to see that the center and sidestand move up and down smoothly.

Recommended lubricant:
Engine oil

EW000114

⚠ WARNING

If the center and/or sidestand does not move smoothly, consult a Yamaha dealer.

PERIODIC MAINTENANCE AND MINOR REPAIR

Front fork inspection

EAU02939

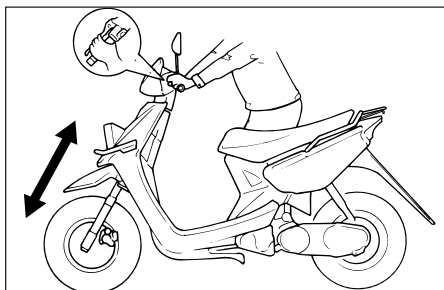
Visual check

EW000115

⚠ WARNING

Securely support the scooter so there is no danger of it falling over.

Check for scratches or damage on the inner tube and excessive oil leakage from the front fork.



Operation check

1. Place the scooter on a level place.
2. Hold the scooter in an upright position and apply the front brake.
3. Push down hard on the handlebars several times and check if the fork rebounds smoothly.

EC000098

CAUTION:

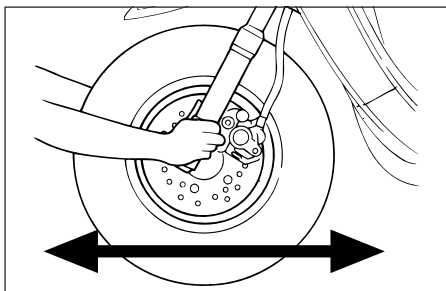
If any damage or unsmooth movement is found with the front fork, consult a Yamaha dealer.

Wheel bearings

EAU01144

If there is play in the front or rear wheel hub or if the wheel does not turn smoothly, have a Yamaha dealer inspect the wheel bearings.

PERIODIC MAINTENANCE AND MINOR REPAIR



EAU00794

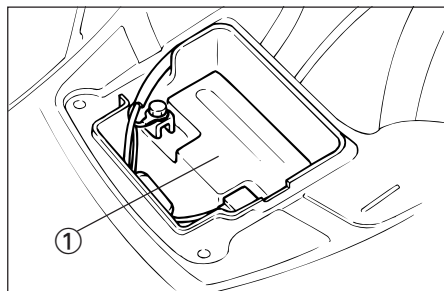
Steering inspection

Periodically inspect the condition of the steering. Worn out or loose steering bearings may be dangerous. Place a stand under the engine to raise the front wheel off the ground. Hold the lower end of the front forks and try to move them forward and backward. If any free play can be felt, ask a Yamaha dealer to inspect and adjust the steering. Inspection is easier if the front wheel is removed.

EW000115

⚠ WARNING

Securely support the scooter so there is no danger of it falling over.



1. Battery

EAUT0800

Battery

The battery is located under the footboard. Remove panel B to access the battery. (Refer to page 6-7 for removal and installation procedures.)

This scooter is equipped with a sealed battery. Therefore it is not necessary to check the electrolyte or fill the battery with distilled water. If the battery seems to have discharged, consult a Yamaha dealer. If the scooter is equipped with optional electrical accessories, the battery tends to discharge more quickly, so be sure to recharge it periodically.

EC000101

CAUTION:

Never try to remove the sealing caps of the battery cells. The battery will be damaged.

EW000116

⚠ WARNING

Battery electrolyte is poisonous and dangerous, causing severe burns, etc. It contains sulfuric acid. Avoid contact with skin, eyes or clothing.

ANTIDOTE:

EXTERNAL: Flush with water.

INTERNAL: Drink large quantities of water or milk. Follow with milk of magnesia, beaten egg, or vegetable oil. Call a physician immediately.

EYES: Flush with water for 15 minutes and get prompt medical attention.

Batteries produce explosive gases. Keep sparks, flame, cigarettes etc., away. Ventilate when charging or using in an enclosed space. Always shield your eyes when working near

PERIODIC MAINTENANCE AND MINOR REPAIR

batteries.
KEEP OUT OF REACH OF CHILDREN.

Battery storage

When the scooter is not used for a month or longer, remove the battery, fully charge it and store it in a cool, dry place.

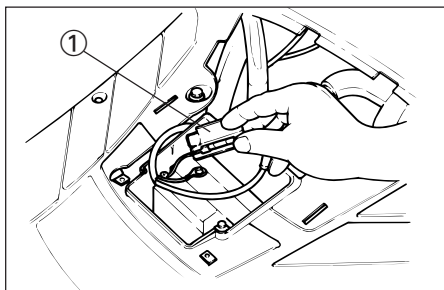
EC000102

CAUTION:

Completely recharge the battery before storing. Storing a discharged battery can cause permanent battery damage.

Use a battery charger designed for a sealed-type (MF) battery. Using a conventional battery charger will cause battery damage. If you do not have a sealed-type battery charger, contact your Yamaha dealer.

Always make sure the connections are correct when reinstalling the battery.



1. Fuse

EAUT0804

Fuse replacement

The fuse case is located beside the battery. Remove panel B to access the battery. (Refer to page 6-7 for removal and installation procedures.)

If the fuse is blown, turn off the main switch and all other switches. Install a new fuse of specified amperage. Turn on the switches and see if all electrical devices operate. If the fuse immediately blows again, consult a Yamaha dealer.

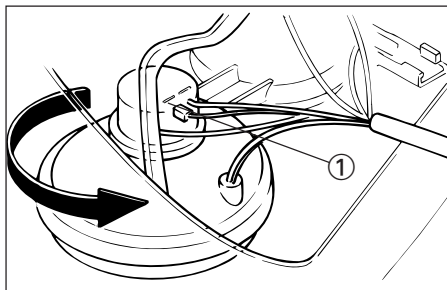
EC000103

CAUTION:

Do not use fuses of higher amperage rating than those recommended. Substitution of a fuse of improper rating can cause extensive electrical system damage and possibly a fire.

Specified fuse:
7A

PERIODIC MAINTENANCE AND MINOR REPAIR



1. Bulb holder

EAUT1528

Headlight bulb replacement

This scooter is equipped with a S1 bulb headlight. If the headlight bulb burns out, replace it as follows:

1. Remove cowling A. (See page 6-6 for cowling removal and installation procedures.)
2. Turn the bulb holder counterclockwise to remove it and remove the defective bulb.

EW000119

⚠ WARNING

Keep flammable products and your hands away from a bulb while it is on, as it is hot. Do not touch a bulb until it cools down.

3. Put a new bulb into position and secure it in place with the bulb holder.

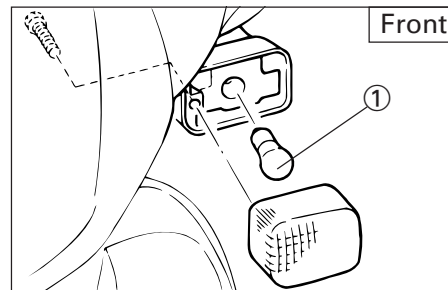
EC000105

CAUTION:

Avoid touching the glass part of a bulb. Keep it free from oil; otherwise, the transparency of the glass, life of the bulb, and luminous flux will be adversely affected. If oil gets on a bulb, thoroughly clean it with a cloth moistened with alcohol or lacquer thinner.

4. Install the cowling.

If the headlight beam adjustment is necessary, ask a Yamaha dealer to make that adjustment.



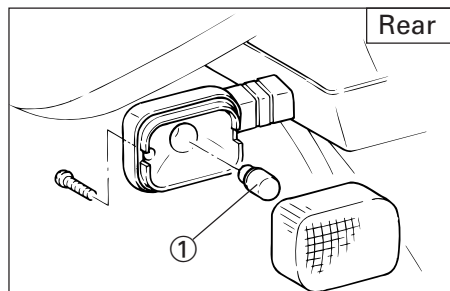
1. Turn signal bulb

EAU00855

Turn signal and taillight bulb replacement

1. Remove the screws and the lense.
2. Push the bulb inward and turn it counterclockwise.

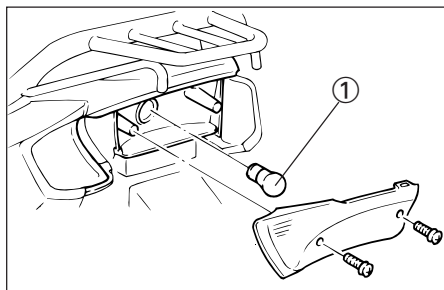
PERIODIC MAINTENANCE AND MINOR REPAIR



1. Turn signal bulb

3. Place a new bulb in the socket. Push the bulb inward and turn it clockwise until it engages into the socket.

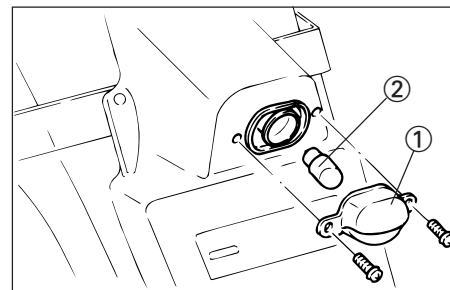
4. Install the lense and the screws.



1. Taillight bulb

EC000108

CAUTION: _____
Do not over-tighten the screws as the lense may break.



1. Light cover

2. License light bulb

EAUT1624

License light bulb replacement

1. Remove the license light cover by removing the screws.
2. Push the bulb inward and turn it counterclockwise.
3. Place a new bulb in the socket. Push the bulb inward and turn it clockwise until it engages into the socket.
4. Install the license light cover and the screws.

EAU01008

Troubleshooting

Although Yamaha scooters receive a rigid inspection before shipment from the factory, trouble may occur during operation.

Any problem in the fuel, compression, or ignition systems can cause poor starting and loss of power. The troubleshooting chart describes a quick, easy procedure for making checks.

If your scooter requires any repair, bring it to a Yamaha dealer. The skilled technicians at a Yamaha dealership have the tools, experience, and know-how to properly service your motorcycle. Use only genuine Yamaha parts on your scooter. Imitation parts may look like Yamaha parts, but they are often inferior. Consequently, they have a shorter service life and can lead to expensive repair bills.

PERIODIC MAINTENANCE AND MINOR REPAIR

Troubleshooting chart

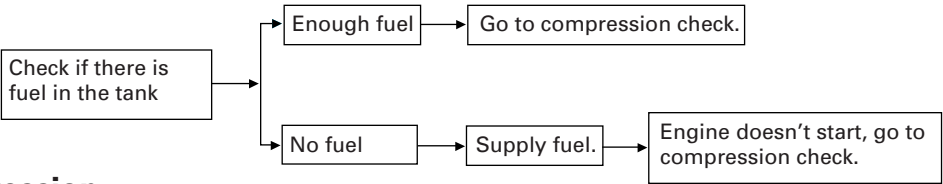
EAU01397

EW000125

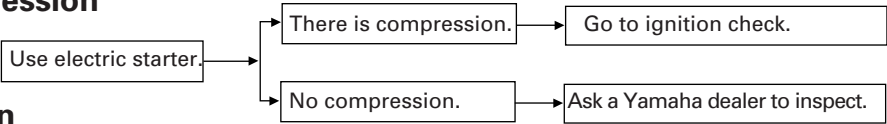
⚠ WARNING

Never check the fuel system while smoking or in the vicinity of an open flame.

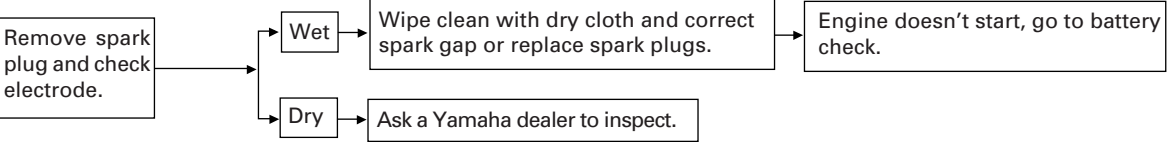
1. Fuel



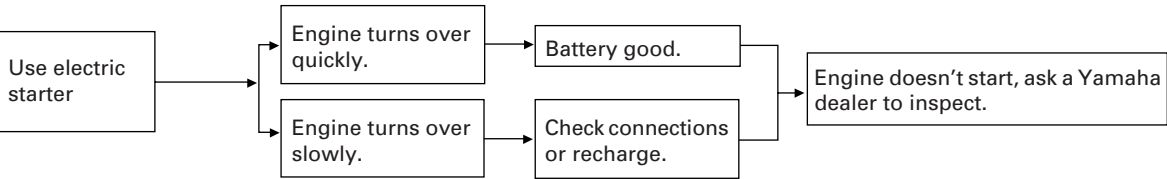
2. Compression



3. Ignition



4. Battery



SCOOTER CARE AND STORAGE

Care

The exposure of its technology makes a scooter charming but also vulnerable. Although high-quality components are used, they are not all rust-resistant. While a rusty exhaust pipe may remain unnoticed on a car, it does look unattractive on a scooter. Frequent and proper care, however, will keep your scooter looking good, extend its life and maintain its performance. Moreover, the warranty states that the vehicle must be properly taken care of. For all these reasons, it is recommended that you observe the following cleaning and storing precautions.

Before cleaning

1. Cover up the muffler outlet with a plastic bag.
2. Make sure that all caps and covers as well as all electrical couplers and connectors, including the spark plug cap, are tightly installed.
3. Remove extremely stubborn dirt, like oil burnt onto the crankcase, with a degreasing agent and a brush, but never apply such products onto seals, gaskets and wheel axles. Always rinse the dirt and degreaser off with water.

Cleaning

After normal use

Remove dirt with warm water, a neutral detergent and a soft clean sponge, then rinse with plenty of clean water. Use a tooth and bottle brush for hard-to-reach parts. Tougher dirt and insects will come off more easily if the area is covered with a wet cloth for a few minutes before cleaning.

ECA00011

CAUTION:

- **Avoid using strong acidic wheel cleaners. If you do use such products for hard-to-remove dirt, do not leave it on any longer than instructed, then thoroughly rinse it off with water, immediately dry the area and apply a corrosion protection spray.**

SCOOTER CARE AND STORAGE

- Improper cleaning can damage windshields, cowlings, panels and other plastic parts. Use only a soft, clean cloth or sponge with mild detergent and water to clean plastic.
 - Do not use any harsh chemical products on plastic parts. Be sure to avoid using cloths or sponges which have been in contact with strong or abrasive cleaning products, solvent or thinner, fuel (gasoline), rust removers or inhibitors, brake fluid, antifreeze or electrolyte.
 - Do not use high-pressure washers or steam-jet cleaners since they cause water seepage and deterioration in the following areas: seals (of wheel bearings, swingarm bearings, bearings, forks and brakes), electric components (couplers, connectors, instruments, switches and lights), breather hoses and vents.
- 9 For scooters equipped with a windshield: Do not use strong cleaners or hard sponges as they will cause dulling or scratching. Some cleaning compounds for plastic may leave scratches on the windshield. Test the product on a small hidden part of the windshield to make sure they do not leave any marks. If the windshield is scratched, use a quality plastic polishing compound after washing.
-

After riding in the rain, near the sea or on salt-sprayed roads

Since sea salt or salt sprayed on the roads in the winter are extremely corrosive in combination with water, carry out the following steps after each ride in the rain, near the sea or on salt-sprayed roads. (Salt sprayed in the winter may remain on the roads well into spring.)

1. Clean your scooter with cold water and soap after the engine has cooled down.

ECA00012

CAUTION:

Do not use warm water since it increases the corrosive action of the salt.

2. Be sure to apply a corrosion protection spray on all (even chrome- and nickel-plated) metal surfaces to prevent corrosion.

SCOOTER CARE AND STORAGE

After cleaning

1. Dry the scooter with a chamois or an absorbing cloth.
2. Use a chrome polish to shine chrome, aluminum and stainless-steel parts, including the exhaust system. (Even the thermally induced discoloring of stainless-steel exhaust systems can be removed through polishing.)
3. To prevent corrosion, it is recommended to apply a corrosion protection spray on all (even chrome- and nickel-plated) metal surfaces.
4. Use spray oil as a universal cleaner to remove any remaining dirt.
5. Touch up minor paint damage caused by stones, etc.
6. Wax all painted surfaces.
7. Let the scooter dry completely before storing it or covering it.

EWA00002

⚠ WARNING

Make sure that there is no oil or wax on the brakes and tires. If necessary, clean the brake discs and linings with a regular brake disc cleaner or acetone, and wash the tires with warm water and mild soap. Then, carefully test the scooter for its braking performance and cornering behavior.

ECA00013

CAUTION:

- **Apply spray oil and wax sparingly and wipe off any excess.**
 - **Never apply oil or wax on rubber and plastic parts, but treat them with a suitable care product.**
 - **Avoid using abrasive polishing compounds as they wear away the paint.**
-

NOTE:

Consult a Yamaha dealer for advice on what products to use.

SCOOTER CARE AND STORAGE

Storage

Short-term

Always store your scooter in a cool, dry place and, if necessary, protect it against dust with a porous cover.

ECA00015

CAUTION:

- **Storing the scooter in a poorly ventilated room or covering it with a tarp while it is still wet will allow water and humidity to seep in and cause rust.**
 - **To prevent corrosion, avoid damp cellars, stables (because of the presence of ammonia) and areas where strong chemicals are stored.**
-

Long-term

Before storing your scooter for several months:

1. Follow all the instructions in the “Care” section of this chapter.
2. Drain the carburetor float chambers by loosening the drain bolts; this will prevent fuel deposits from building up. Pour the drained fuel into the fuel tank.
3. Only for scooters equipped with a fuel cock which has an “OFF” position: Turn the fuel cock to “OFF”.
4. Fill up the fuel tank and add fuel stabilizer (if available) to prevent the fuel tank from rusting and the fuel from deteriorating.
5. Perform the following steps to protect the cylinder, piston rings, etc. from corrosion.

- a. Remove the spark plug cap and spark plug.
- b. Pour a teaspoonful of engine oil into the spark plug bore.
- c. Install the spark plug cap onto the spark plug and place the spark plug on the cylinder head so that the electrodes are grounded. (This will limit sparking during the next step.)
- d. Turn the engine over several times with the starter. (This will coat the cylinder wall with oil.)
- e. Remove the spark plug cap from the spark plug, install the spark plug and then the spark plug cap.

EWA00003

WARNING

When turning the engine over, be sure to ground the spark plug electrodes to prevent damage or injury from sparking.

SCOOTER CARE AND STORAGE

6. Lubricate all control cables and the pivoting points of all levers and pedals as well as of the sidestand/centerstand.
7. Check and, if necessary, correct the tire air pressure, then raise the scooter so that both of its wheels are off the ground. Alternatively, turn the wheels a little every month in order to prevent the tires from becoming degraded in one spot.
8. Cover up the muffler outlet with a plastic bag to prevent moisture from entering.
9. Remove the battery and fully charge it. Store it in a cool, dry place and recharge it once a month. Do not store the battery in an excessively cold or warm place (less than 0°C or more than 30°C). For more information, see "Battery storage" in the chapter "PERIODIC MAINTENANCE AND MINOR REPAIRS".

NOTE: _____
Make any necessary repairs before storing the scooter.

SPECIFICATIONS

Specifications

Model	YW 100E
Dimensions	
Overall length	1,890 mm
Overall width	660 mm
Overall height	1,115 mm
Seat height	765 mm
Wheel base	1,270 mm
Ground clearance	119 mm
Minimum turning radius	1,800 mm
Basic weight with oil and full fuel tank	96 kg
Engine	
Engine type	Air-cooled 2-stroke
Cylinder arrangement	Forward-inclined single cylinder
Displacement	101 cm ³
Bore × Stroke	52.0 × 47.6 mm
Compression ratio	6.6:1
Starting system	Electric / kick starter
Lubrication system	Separate lubrication

Engine oil	
Type	Yamalube 2 or 2-stroke engine oil (JASO FC grade or ISO EG-C, EG-D grade)
Total amount	1.4 L
Final gear oil	
Type	SAE 85 W 140
Total amount	0.13 L
Air filter	Wet type element
Fuel	
Type	Regular unleaded gasoline
Fuel tank capacity	5.7 L
Carburetor	
Type × quantity	VM16SS × 1
Manufacturer	Taiwan Mikuni
Spark plug	
Type / Manufacturer	BPR7HS / NGK
Spark plug gap	0.9 ~ 1.0 mm
Clutch type	Dry, centrifugal automatic

SPECIFICATIONS

Transmission

Primary reduction system	Helical gear
Primary reduction ratio	3.133
Secondary reduction system	Spur gear
Secondary reduction ratio	3.308
Transmission type	V-belt automatic
Operation	Centrifugal automatic type

Chassis

Frame type	Steel tube underbone
Caster angle	26°
Trail	86 mm

Tire

Tubeless

Front	
Size	120/90-10
Manufacturer/model	CHENG SHIN/56J
Rear	
SIZE	130/90-10
Manufacturer/model	CHENG SHIN/59J

Manufacturer/model

Front	CHENG SHIN / 56J
Rear	CHENG SHIN / 59J
Maximum load*	160 kg
Air pressure	
Up to 90 kg load*	
Front	200 kpa(2.0 kg / cm ² , 2.0 bar)
Rear	200 kpa(2.0 kg / cm ² , 2.0 bar)
90 kg load ~ maximum load*	
Front	200 kpa(2.0 kg / cm ² , 2.0 bar)
Rear	200 kpa(2.0 kg / cm ² , 2.0 bar)

*Load is total weight of cargo, rider and accessories.

SPECIFICATIONS

Wheels

Type

Front	Cast wheel
Rear	Cast wheel

Size

Front	MT 3.5 × 10
Rear	MT 3.5 × 10

Brakes

Front

Type	Single disc brake
Operation	Right hand operation
Fluid	DOT 3 or DOT 4

Rear

Type	Drum brake
Operation	Left hand operation

Suspension

Front	Telescopic fork
Inner tube outer diameter	30 mm
Rear	Unit swing

Shock absorber

Front	Coil spring / oil damper
Rear	Coil spring / oil damper

Wheel travel

Front	70 mm
Rear	55 mm

Electrical

Ignition system	C.D.I.
Charging system	
Type	A.C. magneto
Standard output	13~14 V / 4,000rpm
Battery	
Type	YTX 5 L-BS
Voltage, capacity	12 V, 4 AH

Headlight type

S1 bulb

Bulb voltage, wattage × quantity

Headlight	12 V, 25 / 25 W × 2
Tail / brake light	12 V, 5 / 21 W × 1
Turn signal light	12 V, 10 W × 4

Auxiliary light	12 V 5 W × 2
License light	12 V 5 W × 1
Meter light	12 V 1.7 W × 1 + 3.4 W × 1
High beam indicator light	12 V 1.7 W × 1
Turn indicator light	12 V 1.7 W × 1
Oil level indicator light	12 V 1.7 W × 1
Fuse	7A

CONSUMER INFORMATION

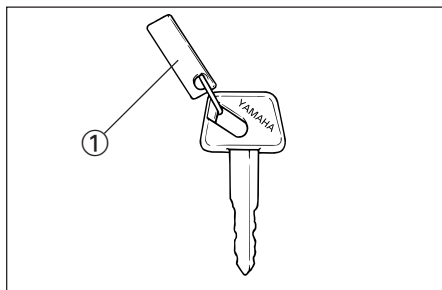
Identification number records EAU02945

Record the key identification number, vehicle identification number and engine serial number in the spaces provided for assistance when ordering spare parts from a Yamaha dealer or for reference in case the vehicle is stolen.

1. KEY IDENTIFICATION NUMBER:

2. VEHICLE IDENTIFICATION NUMBER:

3. ENGINE SERIAL NUMBER:



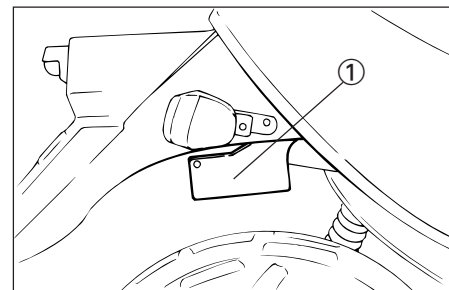
1. Key identification number

EAU01042

Key identification number

The key identification number is stamped on the key.

Record this number in the space provided and use it for reference when obtaining a new key.



1. Vehicle identification number

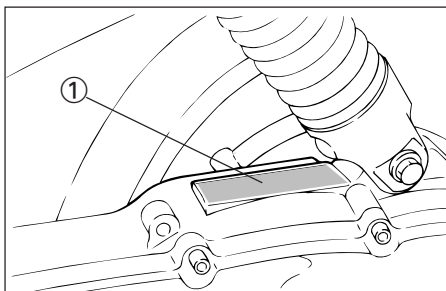
EAU01044

Vehicle identification number

The vehicle identification number is stamped into the frame.

NOTE: _____

The vehicle identification number is used to identify your motorcycle and may be used to register your motorcycle with the licensing authority in your state.



1. Engine serial number

EAU01047

Engine serial number

The engine serial number is stamped into the crankcase.



PRINTED IN TAIWAN
2000.11-1 * 1(E) 